CLAIMS

1. A thermoplastic elastomer composition for a powder material used for slush molding, said thermoplastic elastomer composition comprising:

a polypropylene resin; and

20 to 500 parts by mass of a hydrogenated block copolymer per 100 parts by mass of the polypropylene resin,

the hydrogenated block copolymer comprising a) at least one polymer block A with a primary component comprising a vinyl aromatic hydrocarbon monomer unit and b) at least one polymer block B with a primary component comprising a hydrogenated butadiene monomer unit,

the polymer block B having a hydrogenation degree of at least 90%,

the vinyl aromatic hydrocarbon in the hydrogenated block copolymer present in an amount more than 5 mass% and less than 25 mass%,

the polymer block B before hydrogenation containing 62 mol% or more 1, 2 bonds on average,

wherein the melt flow rate (MFR) of the thermoplastic elastomer composition is at least 10g/10min at 230°C under a load of 2.16 kgf in accordance with Japanese Industrial Standards (JIS) K7210.

2. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 further comprising 20 to 200 parts by mass per 100 parts by mass of the polypropylene resin of at least one of a) a block and b) a random copolymer of styrene and a conjugated diene with a hydrogenation rate of at least 90%, the styrene being present in the at least one of the a) block

and b) random copolymer of styrene and a conjugated diene in an amount more than 14 mass% and less than 50 mass%.

3. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 further comprising 5 to 250 parts by mass of an ethylene-α-olefin copolymer rubber per 100 parts by mass of the hydrogenated block copolymer.

4. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 2 further comprising 5 to 250 parts by mass of an ethylene-α-olefin copolymer rubber per 100 parts by mass of the hydrogenated block copolymer.

5. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 wherein the polypropylene resin comprises a propylene-α-olefin copolymer having a melting point of 120° to 145°C measured with a differential colorimeter at a heating rate of 5°C/min.

6. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 2 wherein the polypropylene resin comprises a propylene-α-olefin copolymer having a melting point of 120° to 145°C measured with a differential colorimeter at a heating rate of 5°C/min.

7. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 3 wherein the polypropylene resin comprises

a propylene-α-olefin copolymer having a melting point of 120° to 145°C measured with a differential colorimeter at a heating rate of 5°C/min.

8. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 4 wherein the polypropylene resin comprises a propylene-α-olefin copolymer having a melting point of 120° to 145°C measured with a differential colorimeter at a heating rate of 5°C/min.

9. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

10. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 2 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

11. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 3 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

12. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 4 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

13. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 5 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

14. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 6 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

15. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 7 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

16. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 8 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

17. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 further comprising a process oil.

18. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 2 further comprising a process oil.

19. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 3 further comprising a process oil.

20. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 4 further comprising a process oil.

21. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 5 further comprising a process oil.

22. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 6 further comprising a process oil.

23. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 7 further comprising a process oil.

24. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 8 further comprising a process oil.

25. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 9 further comprising a process oil.

26. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 10 further comprising a process oil.

27. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 11 further comprising a process oil.

28. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 12 further comprising a process oil.

29. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 13 further comprising a process oil.

30. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 14 further comprising a process oil.

31. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 15 further comprising a process oil.

32. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 16 further comprising a process oil.

33. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

34. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 2 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

35. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 3 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

36. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 4 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

37. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 5 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

38. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 6 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

39. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 7 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

40. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 8 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

41. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 9 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

42. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 10 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

43. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 11 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

44. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 12 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

45. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 13 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

46. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 14 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

47. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 15 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

48. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 16 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

49. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 17 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

50. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 18 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

51. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 19 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

52. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 20 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

53. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 21 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

54. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 22 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

55. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 23 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

56. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 24 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

57. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 25 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

58. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 26 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

59. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 27 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

60. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 28 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

61. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 29 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

62. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 30 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

63. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 31 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

64. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 32 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

65. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 1 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

66. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 2 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

67. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 3 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

68. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 4 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

69. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 5 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

70. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 6 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

71. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 7 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

72. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 8 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

73. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 9 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

74. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 10 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

75. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 11 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

76. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 12 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

77. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 13 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

78. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 14 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

79. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 15 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

80. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 16 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

81. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 17 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

82. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 18 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

83. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 19 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

84. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 20 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

85. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 21 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

86. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 22 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

87. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 23 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

88. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 24 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

89. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 25 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

90. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 26 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

91. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 27 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

92. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 28 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

93. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 29 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

94. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 30 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

95. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 31 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

96. The thermoplastic elastomer composition for a powder material used for slush molding according to claim 32 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

97. A thermoplastic elastomer composition for a powder material used for slush molding, said thermoplastic elastomer composition comprising:

a polypropylene resin;

20 to 300 parts by mass of a random copolymer of styrene and a conjugated diene per 100 parts by mass of the polypropylene resin,

the random copolymer having a hydrogenation degree of at least 90%,

the styrene being present in an amount of more than 5 mass% and less than 14 mass%,

the conjugated diene comprising at least 60 mol% of one of a) 1, 2 or b) 3, 4 bonds on average; and

20 to 200 parts by mass of at least one of a) a block and b) a random copolymer of styrene and a conjugated diene per 100 parts by mass of the polypropylene resin and having a hydrogenation degree of at least 90%,

the styrene being present in at least one of the a) block and b) random copolymer of styrene and a conjugated diene in an amount more than 14 mass% and less than 50 mass%.

98. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 97 further comprising 5 to 250 parts by mass of an ethylene-α-olefin copolymer rubber per 100 parts by mass of hydrogenated copolymer.

99. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 97 wherein the polypropylene resin comprises a propylene-α-olefin copolymer having a melting point of 120° to 145°C measured with a differential colorimeter at a heating rate of 5°C/min.

100. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 98 wherein the polypropylene resin comprises a propylene-α-olefin copolymer having a melting point of 120° to 145°C measured with a differential colorimeter at a heating rate of 5°C/min.

101. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 97 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

102. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 98 further comprising 0.02 to 5.0 parts by mass of an organic peroxide per 100 parts by mass of the polypropylene resin.

103. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 97 further comprising a process oil.

104. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 98 further comprising a process oil.

105. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 97 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

106. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 98 wherein the thermoplastic elastomer composition is freeze-pulverized to produce particles having a size to pass through a sieve not greater than 1.00 mm.

107. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 97 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

108. A thermoplastic elastomer composition for a powder material used for slush molding according to claim 98 wherein the thermoplastic elastomer composition is treated by hot-cutting in water to produce particles having an effective mean diameter of 1.00 mm or less.

109. A skin formed by slush molding powder made from a thermoplastic elastomer composition as recited in any of claims 1-108.